

**Patent claims**

1. A gasification boiler for solid fuels, in particular for bales of straw, with optimized exhaust gas values and burn-up at the bottom, comprising a fuel and gasification space which can be closed by means of a filling door and has air feeds, a grating arranged at the bottom, a combustion space situated below it, and ash separator, heat exchange surfaces and fan arranged behind it in terms of flow, characterized
  - in that the fuel and gasification space (1) has depressions (4) for collecting ash laterally next to the centrally arranged grating (2) and the combustion space (3),
  - a cylindrical combustion chamber (5) designed as an additional constructional unit is connected to the outlet of the combustion space (3),
  - and a cylindrical ash separator (6) which is designed as an additional constructional unit and is connected to a known heat exchanger is connected to the combustion chamber (5).
2. The gasification boiler as claimed in claim 1, characterized in that the lower, lateral depressions (4) of the fuel and gasification space (1) are of half-shell-shaped design and run parallel to the combustion space (3) and the latter is in each case assigned a small door for the removal of ash.
3. The gasification boiler as claimed in claims 1 and 2, characterized in that the cylindrical combustion chamber (5) is connected at the bottom tangentially to the outlet of the combustion space (3), so that the combustion gas rises therein in a swirling manner and in that the combustion chamber (5) can be closed at the top by a cover (7).

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4. The gasification boiler as claimed in claims 1 to 3, characterized in that the cylindrical ash separator (6) is connected at the top tangentially to the outlet of the combustion chamber (5), and a flue pipe with the 5 opening approximately halfway up is arranged centrally.

5. The gasification boiler as claimed in claim 4, characterized in that a circular baffle plate (8) is fitted below the opening of the flue pipe in such a 10 manner that an annular opening for the depositing of ash remains from the outer wall, and in that the ash separator (6) can be closed at the top by a cover (9).

15 6. The gasification boiler as claimed in claims 1 to 5, characterized in that the cylindrical combustion chamber (5), the cylindrical ash separator (6) and the heat exchanger are connected in a framework (10) to form a constructional unit.